

REMARKS

The Office Action dated February 7, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-7 and 9-42 are pending in the application. Claims 1-5, 11, 14, 16-22, 29, 31, 39, and 42 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Support for these amendments may be found, at least, at page 17, line 18, to page 18, line 22, of the Specification. Claim 8 has been canceled. No new matter is added. Applicants submit the pending claims for consideration in view of the following.

Claims 1-14 and 21-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kristol. et al (US 5,541,927, hereinafter "Kristol") in view of Watson et al. (US 6,631,409, hereinafter "Watson"). The Office Action took the position that Kristol discloses a server configured to push status packets to a client, but fails to disclose that the server is also configured to detect status information from the communication network and push the status information to a client without a request for the status information from the client. To overcome the deficiencies of Kristol, the Office Action relied on Watson. Applicants respectfully request that this rejection be withdrawn because a combination of Kristol and Watson fails to disclose or suggest all the limitations of any of the pending claims.

Claim 1, upon which claims 2-20 and 41 depend, is generally directed to a

network hub in a communication network. The network hub includes a server that is devoid of an internal processor, yet configured to detect status information from the communication network, store the status information in a network information table, and analyze the status information to produce operational information of an operational state of the network. The server is also configured to push the operational information to a client without a request for the status information from the client. The status information includes network information about the communication network.

Claim 21, upon which claims 22-30 depend, is generally directed to a communication apparatus that is devoid of an internal microprocessor. The communication apparatus includes a network information detector configured to detect network information from a communication network and a network information table configured to store the network information detected by the network information detector. The communication apparatus also includes a network operations analyzer configured to analyze the networking information in the network information table to produce operational information of an operational state of the network and a network information transmitter configured to selectively push the operational information in the network information table without a request for the network information. The network information includes information about the communication network to which the communication apparatus corresponds.

Claim 31, upon which claims 32-40 depend, is generally directed to a communication apparatus that is devoid of an internal microprocessor. The

communication apparatus includes a network information receiver that is operably coupled with a communication network and configured to receive network information. The communication apparatus also includes a network information table configured to store network information from the network information receiver and a network operations detector configured to detect the networking information from the communication network. The communication apparatus further includes a network information table configured to store the network information detected by the network information detector and a network operations analyzer configured to analyze the networking information in the network information table to produce operational information of an operational state of the network. Additionally, the communication apparatus includes a network information transmitter that is configured to transmit the operational information of an operational state of the network without a request for the operational information. The network information includes information about the communication network.

Claim 42 is generally directed to a status apparatus that is void of an internal microprocessor. The status apparatus includes a network hub in a communication network and a server in communication with the network hub. The server is configured to detect status information from the communication network and store the status information in a network information table. The status apparatus is also configured to analyze the networking information in the network information table to produce operational information of an operational state of the network and push operational information regarding the network hub to a client without a request for the status information from the client.

The status information includes network information about the communication network.

A combination of Kristol and Watson fails to disclose or suggest all the limitations of any of the foregoing claims.

Kristol generally discloses a method of multicasting. Kristol generally discusses a method in which Source S sends a multi-cast packet to all destinations. Each destination that is first in the column sends its status to S, and each other destination in the column sends its destination to the first destination in the column. The first destination in the column ($E_{i,1}$) locally remulticasts if $E_{i,1}$ receives the multicast packet but a destination below it ($E_{i,j}$, $j \neq 1$) has not, and S remulticasts if a first destination in a column has not received the packet.

Watson generally discloses a method and apparatus for monitoring a communications system. In Watson, multiple elements are connected to a network. The elements include a monitor server that obtains status information from each of the elements. The network also includes a client server that retrieves status information from the monitor server and provides the status information to a display means that presents the status information to a user in a graphical interface.

However, a combination of Kristol and Watson fails to disclose or suggest, at least, “a server...configured to detect status information...store the status information in a network information table, analyze the status information to produce operational information of an operational state of the network, and push the operational information

to a client without a request for the operational information from the client, wherein...the server is devoid of an internal microprocessor,” as recited in claim 1.

The Office Action took the position that the “source” in Kristol is comparable to the server of claim 1. However, Kristol discloses that the “source” is actually a “source host,” not a “server,” as recited in claim 1. For example, column 2 lines 23-29 disclose that, “The inventive method delivers information from the source host to the destination hosts in sequence along the multicast tree.” The distinctions between a “host” and a “server” are clear and well known in the art. Therefore, the claim 1 features that are allegedly applicable to the host of Kristol are misplaced due to the distinct networking roles and operations of a server and a host.

Additionally, Kristol fails to disclose or suggest a server that is devoid of a processor. As indicated above, the host in Kristol is capable of transmitting data, verifying that the data has been received, and retransmitting the data to any destinations that should have received the data, but did not. As such, one skilled in the art would appreciate that a device capable of executing the foregoing operations, in addition to the additional operations attributed to the source host in Kristol would inherently, if not necessarily, include an internal microprocessor. Therefore, Kristol fails to disclose or suggest a server that is devoid of a processor as recited in claim 1.

Additionally, Kristol fails to disclose or suggest a server that is devoid of a processor, yet configured to detect status information, store the status information in a network information table, analyze the status information to produce operational

information, and push the operational information to a client without a request for the operational information. In Kristol, the source host merely transmits blocks of information to a set of destinations, receiving an indication of which destinations received the blocks of information, and then retransmitting the blocks of information to any destinations that failed to receive the block of information from the initial transmission. As such, claim 1 recites multiple features and operations that are executed before the “transmitting” operation in Kristol. These prior operations are not found in Kristol, nor does Kristol provide a benefit or problem that would motivate one skilled in the art to impose such operations on the Kristol host. Rather, these operations would stifle the communication efficiency interest that is the basis of the Kristol invention. As such, Kristol fails to disclose or suggest a server that is devoid of a processor, yet capable of performing operations recited in claim 1.

Similarly, Watson fails to remedy the foregoing deficiencies Kristol. Watson discloses a monitor server and a client server, but fails to disclose “a server...configured to detect status information...store the status information in a network information table, analyze the status information to produce operational information of an operational state of the network, and push the operational information to a client without a request for the operational information from the client, wherein...the server is devoid of an internal microprocessor,” as recited in claim 1. As such, Watson fails to remedy the deficiencies of Kristol. Therefore, a combination of Kristol and Watson fails to disclose or suggest all the limitations of claim 1.

Additionally, one of ordinary skill in the art would not have combined Kristol and Watson because the two references take diametrically opposed approaches to communicating information. On one hand, Kristol multicasts packets to a plurality of destinations, awaits status responses, then remulticasts if expected responses are not received. Watson, on the other hand, discloses a server that retrieves and displays status information. In other words, Kristol is directed to efficiently multicasting data to a plurality of destinations, while Watson is directed to retrieving and displaying data on a pre-selected server. As such, one of ordinary skill in the art would not and could not combine Kristol and Watson to arrive at the claimed invention.

Furthermore, one of ordinary skill in the art would not be motivated to combine Kristol and Watson because each reference demonstrates a contentment with the technology disclosed therein. For example, Kristol is directed to “solving” the problems created by unnecessary remulticasts and provides high throughput and low delay in information transmission. Similarly, Watson is directed to resolving issues regarding the amount of time needed to test network products. Watson is void of a need to multicast data because it is directed to presenting network information on a pre-selected server. Additionally, the efficiency interest in Kristol would be compromised by making the host source wait for operations to be performed by a Watson monitoring server. As such, one skilled in the art, having knowledge of Kristol and Watson would not be motivated or even inclined to modify and combine Kristol and Watson to arrive at the claimed invention.

For the foregoing reasons, Applicant respectfully requests that the §103(a) rejection to claim 1 be withdrawn. Similarly, Applicant respectfully request that the §103(a) rejection of claims 21, 31, and 42 be withdrawn as these claims recite limitations that are similar to the limitations of claim 1, though each claim has its own scope. Additionally, Applicant respectfully requests that the §103(a) rejection of claims 2-7, 9-14, and 22-30, and 32-41 be withdrawn for their dependency from claims 1, 21, and 31, and for the patentably distinct features recited therein.

Claims 15-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kristol in view of Watson and Fujino et al. (US Patent 5,651,006, hereinafter “Fujino”). The Office Action took the position that a combination of Kristol and Watson fails to disclose all the limitations of claims 15-20 but that Funino overcomes the deficiencies of Kristol and Watson. This rejection is traversed on at least the grounds that a combination of Kristol, Watson, and Fujino fails to recite all the limitations of claims 15-20 because Fujino fails to account for the deficiencies of Kristol and Watson with respect to claim 1, from which claims 15-20 depend.

Kristol and Watson, with respect to claim 1, are discussed above. Fujino generally discloses a hierarchical network management system. In Fujino, the hierarchical network management system includes multiple agents, sub-managers, managers, and integration managers. The agents and sub-managers are connected to a lower communication network, while an integration manager is connected to a higher communication network. The sub-managers function as agents to integration managers and function as a managers

to agents. In this manner, Fujino segments a larger system into multiple segments to facilitate network management and implementation.

However, similar to a combination of Kristol and Watson, Fujino fails to disclose or suggest, at least, “a server...configured to detect status information...store the status information in a network information table, analyze the status information to produce operational information of an operational state of the network, and push the operational information to a client without a request for the operational information from the client, wherein...the server is devoid of an internal microprocessor,” as recited in claim 1.

Instead, Fujino is concerned with the structure and function of the network as a whole and the role of the components therein, as described above with respect to managers, sub-managers, integration managers, and agents. As such, Fujino fails to remedy the deficiencies of Kristol and Watson. Moreover, one of ordinary skill in the art could not combine the references with any reasonable degree of success to arrive at the claimed invention, nor would one of ordinary skill in the art be motivated to make such an attempt.

Fore the foregoing reasons, Applicant respectfully request that the §103(a) rejection of claims 15-20 be withdrawn for the dependency from claim 1 and for the patentably distinct subject matter recited therein.


The foregoing comments made with respect to the positions presented in the Office Action are not be to construed as acquiescence with other positions presented in the Office Action that have not been explicitly contested. Accordingly, the above

arguments for patentability of a claim should not be construed as implying that there are not other valid reasons for patentability of the claim or other claims. Additionally, the Applicant does not acquiesce that the cited art anticipates or renders obvious any of the claims as previously presented, and reserve the right to pursue any of the previously presented claims in a subsequent application.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Jared T. Olson
Registration No. 61,058

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

JTO:jeh